TABLE IX-continued

Signal	Meaning
temptype	Template type - field in link pattern - isoenet, isotoken, reserved
txe	Transmit enable
window	Used to frame a group of link pulses to ensure that there is exactly 16 bits
tmodebus	Link pattern to be transmitted conveyed by this bus

TABLE X

Term	Meaning	Value
llt	Link Loss Timer	60 ms
ltmt	Link Test Min Timer	4 ms
ltxt	Link Test Max Timer	32 ms
flmt	Fast Link Max Timer	156.25 μs
fldt	Fast Link Data Timer	94 μs
ipact	Input Packet from Squelch	Not Applicable
sflmt	Set Fast Link Max Timer	Not Applicable
sltxt	Set Link Test Max Timer	Not Applicable

What is claimed is:

1. In a network having at least a first data source/sink and a second data source/sink coupled together by a physical medium, apparatus for determining at least one protocol capability of said second data source/sink, comprising:

first means, coupled to said first source/sink, for placing a first signal onto said physical medium, said first signal indicating a first protocol capability of said first source/sink;

second means, coupled to said second data source/sink, for receiving said first signal,

third means, coupled to said second data source/sink, for transmitting a second signal onto said physical medium when said second data source/sink has said first protocol capability, said second signal comprising a plurality of pulses spaced-apart by a first time interval, and a third signal, different from said second signal, when said second data source/sink has a second protocol capability, said third signal comprising a plurality of pulses spaced-apart by a second time interval, different from said first time interval;

fourth means, coupled to said first data source/sink, for detecting whether said signal transmitted by said second means is said second signal or said third signal, and

fifth means, coupled to said first data source/sink, for establishing communication with said second data source/sink using said first protocol if said fourth means detects said second signal and using said second protocol if said fourth means detects said third signal.

2. Apparatus, as claimed in claim 1, wherein said first time interval is about 125 microseconds.

3. Apparatus, as claimed in claim 1, wherein said second time interval is about 16 milliseconds.

4. Apparatus, as claimed in claim 1, wherein said second signal further comprises a plurality of data pulses.

5. Apparatus, as claimed in claim 4, wherein each of said data pulses is generated a predetermined time interval after one of said plurality of pulses of said second signal.

6. Apparatus, as claimed in claim 5, wherein said predetermined time interval is about 62.5 microseconds.

7. In a network having at least a first data source/sink and a second data source/sink coupled together by a physical medium, a state machine apparatus for generating a first

signal for transmission over said physical medium, comprising:

means for receiving said first signal over physical medium indicating a communication protocol capability of a first source/sink;

means for determining whether said first signal has a first period or a second period, said second period being shorter than said first period;

means for outputting a second signal, having said first period, when said first signal has said first period;

means for preventing output of said second signal when said first signal has said second period.

8. In a network having at least a first data source/sink and a second data source/sink coupled together by a physical medium, a state machine apparatus for generating a first pulsed signal for transmission over said physical medium, comprising:

means for receiving said first pulsed signal over said physical medium indicating a communication protocol capability of a first source/sink;

means for determining whether said first pulsed signal has a first period or a second period, said second period being shorter than said first period;

means for outputting a second signal, having said second period, when said first signal has said second period and after a predetermined number of pulses of said first signal have been received.

9. Apparatus, as claimed in claim 8, wherein said predetermined number of pulses is three.

10. Apparatus, as claimed in claim 8 wherein said first pulsed signal comprises a plurality of periodic pulses and a plurality of data pulse windows located a predetermined period after each of said periodic pulses and further comprising:

means for determining the state or said first signal in at least some of said plurality or data pulse windows.

11. In a network having at least a first data source/sink and a second data source/sink coupled together by a physical medium, a method for determining at least one protocol capability of said second data source/sink, comprising:

placing a first signal onto said physical medium by said first data source/sink, said first signal indicating a first protocol capability of said first source/sink;

receiving said first signal in said second data source/sink,

transmitting a second signal onto said physical medium by said second source/sink when said second data source/sink has said first protocol capability, said second signal comprising a plurality of pulses space-apart by a first time interval, and outputting a third signal, different from said second signal, when said second data source/sink has a second protocol capability, said third signal comprising a plurality of pulses spaced-apart by a second time interval, different from said first time interval;

detecting, in said first data source/sink, whether said signal transmitted by said second means is said second signal or said third signal, and

establishing communication with said second data source/sink using said first protocol if said fourth means detects said second signal and using said second protocol if said fourth means detects said third signal.

12. A method, as claimed in claim 11, wherein said second signal further comprises a plurality of data pulses.

13. A method, as claimed in claim 12, wherein each of said data pulses is output a predetermined time interval after one of said plurality of pulses of said second signal.

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